

10/510077

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
16 October 2003 (16.10.2003)

PCT

(10) International Publication Number
WO 03/085949 A3(51) International Patent Classification⁷: G02F 1/13363

(21) International Application Number: PCT/KR03/00667

(22) International Filing Date: 3 April 2003 (03.04.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10-2002-0018580 4 April 2002 (04.04.2002) KR

(71) Applicant (for all designated States except US): SAM-SUNG ELECTRONICS CO., LTD. [KR/KR]; 416, Mae-tan-dong, Paldal-ku, Suwon-city 442-370, Kyungki-do (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): KIM, Tae-Hwan [KR/KR]; Hyundai Prime Apt. 1-2606, Gueui 3-dong, Kwangjin-ku, Seoul 143-761 (KR). YANG, Young-Chol [KR/KR]; Jookong Apt. 2-danji 220-1201, Geum-jeong-dong, 435-050 Kunpo-city, Kyungki-do (KR). KIM, Sang-II [KR/KR]; Cheongmyeong Jookong Apt. 406-201, Youngtong-dong, Paldal-ku, 442-738 Suwon-city, Kyungki-do (KR).

(74) Agent: YOU ME PATENT & LAW FIRM; Teheran Bldg., 825-33, Yoksam-dong, Kangnam-ku, Seoul 135-080 (KR).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

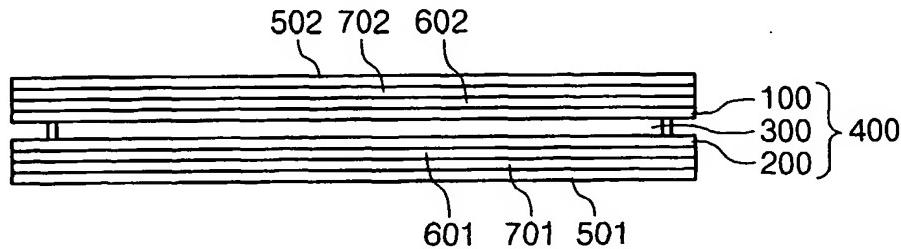
Published:

— with international search report

(88) Date of publication of the international search report:
27 November 2003

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: LIQUID CRYSTAL DISPLAY PROVIDED WITH COMPENSATION FILM



WO 03/085949 A3

(57) Abstract: An LCD according to an embodiment of the present invention includes a liquid crystal panel assembly (400) including two panels (100, 200) facing each other and a liquid crystal layer (300) interposed between the two panels and having positive dielectric anisotropy. A pair of polarization films (501, 502) are attached to the outer surfaces of the liquid crystal panel assembly, respectively. A positive or negative a-plate compensation film (602, 601) having reverse wavelength dispersion that Δn increases as the light wavelength increases and a negative hybrid c-plate compensation film (701, 702) are inserted between the liquid crystal panel assembly (400) and each of the polarization films (501, 502).

INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR 03/00667-0

CLASSIFICATION OF SUBJECT MATTER

IPC⁷: G02F 1/13363

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC⁷: G02F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPODOC, WPI

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5557434 A (WINKER et al.) 17 September 1996 (17.09.96) <i>fig. 2,3; column 4, line 32 - column 8, line 19.</i>	1-3,8
A	WO 01/20392 A1 (MERCK PATENT GMBH) 22 March 2001 (22.03.01) <i>fig. 2a,2b,3; page 10, line 13 - page 20, line 24.</i>	1-3,8
A	US 5982465 A (SAXENA et al.) 9 November 1999 (09.11.99) <i>fig. 2; column 3, line 20 - column 5, line 21.</i>	1,3,8

 Further documents are listed in the continuation of Box C. See patent family annex.

- * Special categories of cited documents:
 „A“ document defining the general state of the art which is not considered to be of particular relevance
 „E“ earlier application or patent but published on or after the international filing date
 „L“ document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
 „O“ document referring to an oral disclosure, use, exhibition or other means
 „P“ document published prior to the international filing date but later than the priority date claimed
- „T“ later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
 „X“ document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
 „Y“ document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
 „&“ document member of the same patent family

Date of the actual completion of the international search 21 July 2003 (21.07.2003)	Date of mailing of the international search report 11 September 2003 (11.09.2003)
Name and mailing address of the ISA/AT Austrian Patent Office Dresdner Straße 87, A-1200 Vienna Facsimile No. 1/53424/535	Authorized officer GRONAU E. Telephone No. 1/53424/320

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR 03/00667-0

Patent document cited in search report	Publication date	Patent family member(s)			Publication date
US A 5557434	17-09-1996	JP	T2 10507009		07-07-1998
		WO	A1 9610772		11-04-1996
US A 5982465	09-11-1999	JP	A2 11095188		09-04-1999
WO A 120392			none		